

a long one and includes over 50 new species. A synopsis of *N. Am. Desmanthus* is given, which shows 10 species.

The rest of the contribution contains the descriptions of new species, chiefly from our Western Territories. *Astragalus* receives 5 new species; *Eriogonum* 4; *Arabis*, *Caulanthus*, *Silene*, *Atriplex*, each 3; and *Myosurus*, *Claytonia*, *Arenaria*, *Malvastrum* (one from Florida), *Lupinus*, *Dalea*, *Sedum*, *Cotyledon*, *Oenothera*, *Allium*, each 2. The distinguishing characters of our four species of *Physaria* are given. *Lupinus Plattensis* is the specific name given to *L. ornatus*, Dougl., var. *glabratus*, Watson.

A discovery of special interest to eastern botanists and all those who use our eastern manuals is that of *Pedicularis Furbishie* on wet banks of the St. John's River, at Van Buren, Aroostook Co., Maine, and extending along the river for sixty miles. This species is allied to *P. Canadensis* and *P. bracteosa* and is dedicated to its discoverer, Miss Kate Furbish, who has worked so successfully among the plants of her native state.—J. M. C.

Native Trees of the Lower Wabash in Illinois and Indiana, by Robert Ridgway.—This is the substance of the title to a paper published in the Proceedings of the U. S. National Museum, and to the author we are much indebted for advance sheets. Mr. Ridgway has made a careful study of the trees of the Lower Wabash and White River Valleys, and with the help of Dr. J. Schneck, of Mt. Carmel, Ill., has made this a most interesting and valuable paper. If space permitted we would like to publish copious extracts from it, but in this notice will have to be content with a meager outline. The author aptly describes our Southern Indiana forests as distinguished from those of more eastern districts by the absence of coniferous trees and the great variety of species growing together. Our woods are most decidedly "mixed woods" and 40 to 50 species are given as growing indiscriminately upon areas of 50 to 75 acres.

In regard to size, many measurements were taken, showing a most liberal growth. At least 34 species of trees reach or exceed a height of 100 feet; no less than 11 reach a height of 150 feet; and the greatest height recorded was that of a *Liriodendron*, being 190 feet.

The paper contains a list of 92 species with very interesting notes, the longest being upon our Tulip tree, or "Poplar" (*Liriodendron tulipifera*), the most magnificent of our trees; the White Elm, or "Red Elm" (*Ulmus Americana*), with its spurs or buttresses at base and its parasite, the mistletoe; the Sycamore (*Platanus occidentalis*), the largest hardwood tree of North America, with greatest girth and most massive branches, in one case the measurement about the base being 42 feet, and reports of others much larger, even to 66 feet; the Bald Cypress (*Taxodium distichum*)

whose presence so far north can only be accounted for by the open and low north and south valley of the Wabash. The occurrence of this last tree is so peculiar that a short extract from Mr. Ridgway's paper concerning it will be of interest.

It grows in the lower part of Knox County, Indiana, or that portion embraced between the Wabash and White Rivers and known as "The Neck." It is very abundant, the area embraced by the cypress swamps, and largely timbered with cypress, being estimated at 20,000 acres.

"Although known as the 'Cypress Swamp,' it consists of a series of beautiful, secluded ponds, hidden in the dense forest, and difficult of access by any one not familiar with the locality." "The cypress trees grow chiefly around the borders of these ponds and along the sloughs connecting them, as well as on the one which empties into the river. Being so near the river, into which the logs are floated at "high water," the finest trees have long since been destroyed, and there are very few left whose symmetry is not marred by low-growing branches or knots upon the trunks. The largest standing tree observed by me was a very old and exceedingly rough specimen, entirely unfit for lumber or shingles. The swollen base measured 45 feet in circumference at the ground, the girth immediately above the conical portion being 21 feet; the trunk consisted of several upright stems grown together for the greater part of their length, but in places distinct, with one very conspicuous transverse growth joining the two main stems, at a height of about 50 feet from the ground. The top expanded 94 feet, the greater part of it elevated over 100 feet from the ground. A solid stump, measuring 38 feet around at the ground, was 22 feet in girth at 8 feet; at about 15 feet it divided into two main trunks of equal size, which were cut off immediately above the fork, a scaffold being necessary for the purpose." "The tallest did not much exceed 140 feet, their average height being little, if any, over 100 feet; and even the finest of them would not compare for symmetry and length with the Sweet Gums and Ashes with which they were associated."—J. M. C.

Notes from S. Illinois.—While collecting parasitic fungi in Southern Illinois last Spring, I found on shelving rocks at Makanda, Jackson Co., a fungus on a species of *Oenothera*. The fungus (an *Uromyces* accompanied by an *Aecidium*) is probably a new species and the *Oenothera* is new to the Northern United States. The latter did not agree with any description in the Manual, and specimens were sent to Dr. Geo. Vasey who determined it to be *Oenothera linifolia*, Nutt. I found the same in a similar situation near Tunnel Hill, Johnson Co. It was plentiful in both localities. At the latter place I also found *Silene Virginica*, L., which was previously reported in Illinois only "on wooded banks of Desplaines